



# Electronic Data Reporting Acid Rain Program/ Subpart H

March 2003  
Version 2.1

**1. *Who is required to use Electronic Data Reporting v2.1 formats?***

Nearly all units required to monitor and report emissions data under 40 CFR Part 75 must use EDR v2.1. Presently, this includes Acid Rain Program units, and units in the NO<sub>x</sub> Budget Trading Program that are subject to the monitoring and reporting provisions of Subpart H of Part 75. However, note that as the result of changes made to Part 75 on June 12, 2002, certain affected units are required to upgrade to a new EDR version, known as v2.2.

**2. *Which Acid Rain Program and NO<sub>x</sub> Budget Trading Program facilities are required to use EDR v2.1 and which ones are required to use EDR v2.2?***

Acid Rain Program units have been required to report in EDR v2.1 since April 1, 2000.

Non-Acid Rain affected facilities subject to the NO<sub>x</sub> Budget Trading Program must report in EDR v2.1 (or v2.2) beginning on:

- The applicable "commencement of reporting" date specified in the State SIP or in 40 CFR Part 97; or
- An earlier date if the NO<sub>x</sub> Authorized Account Representative intends to apply for early reduction credits.

The following units are required to upgrade from EDR v2.1 to v2.2, as the result of changes to Part 75 that were promulgated on June 12, 2002:

- Units that do not produce electrical or steam load (e.g., cement kilns, refinery process heaters, etc.)
- Other ARP and Subpart H units that elect to use certain new options provided by the June 12, 2002 rule.

EPA has provided separate implementation guidance for each category of rule change, to clarify whether an upgrade to v2.2 is needed (see "Implementation Guidelines for the June 12, 2002 Revisions to Part 75"--- available on the CAMD website at [www.epa.gov/airmarkets/](http://www.epa.gov/airmarkets/)).

**3. *If my facility is load-based and I do not elect to use any of the new options in the June 12, 2002 rule, may I continue to report in EDR v2.1 format, using the v2.1 instructions?***

Yes—or you may voluntarily upgrade to v2.2. If you elect to continue reporting in v2.1, EPA recommends that you replace the January 24, 2001 editions of EDR v2.1 and the accompanying Reporting Instructions with the updated March 2003 editions. The March 2003 revised EDR v2.1 Reporting Instructions reflect the June 12, 2002 rule changes, and also correct known errors in the January 24, 2001 edition and expand the instructions for certain fields and record types.

#### **4. *How do the structure and data elements of differ in the March 2003 and January 24, 2001 editions of EDR v2.1?***

There are no structural differences between the January 24, 2001 and March 2003 editions of EDR v2.1. All of the record types and data fields listed in Tables 1 through 5 below are common to both editions.

The data element descriptions in a number of v2.1 Record Types in the March 2003 edition differ from the corresponding data element descriptions in the January, 24, 2001 edition. Some new codes have also been added to the "RANGE" and "UNITS" columns of several records, and a few data fields have been reserved. Most of these changes are associated with the June 12, 2002 rule revisions and with the discontinuation of the Ozone Transport Commission (OTC) NO<sub>x</sub> Budget Trading Program in the Northeastern U.S.

Table A-1 in Appendix A summarizes the differences in the data element descriptions, codes, etc. between the March 2003 and January 24, 2001 editions of EDR version 2.1.

#### **5. *How is the EDR organized?***

The EDR is divided into five tables:

Table 1 provides an index listing all the possible EDR record types that may be submitted in a v2.1 electronic report.

Tables 2 through 5 define the specific computerized layout or "record structures" of the electronic reports, containing the following types of data: Quarterly Emission Data (Table 2), Monitoring Plan Data (Table 3), Certification-QA/QC Test Data (Table 4), and Compliance Certification Data (Table 5).

The record structures in Tables 2 through 5 define the order, length, and placement of information within the electronic report or "file" (*i.e.*, the Record Type, Type Code, Start Column, Data Element Description, Units, Range, Length, and Fortran (FTN) Format for each data element in the electronic report). This information is used to construct electronic files to submit electronic reports to the U.S. Environmental Protection Agency.

In Tables 1 through 5, each record type that differs from the January 24, 2001 edition of EDR v2.1, *by a change to an existing field, description or code* has been marked as "(Modified)" next to the description in the Record Type column. Note that some of the changes are not visible in this EDR format document, because they involve new codes that are listed only in the accompanying EDR v 2.1 Instructions document.

#### **6. *Which EDR records are needed for which programs?***

The Program Column in Tables 2 through 5 indicates the regulatory programs for which each record type may be applicable. "ARP" indicates Part 75 Acid Rain Program requirements, and "Subpart H" indicates the applicability of the record to a unit using the NO<sub>x</sub> mass monitoring provisions in Subpart H of Part 75 (*e.g.*, units covered by the NO<sub>x</sub> Budget Trading Program). This designation includes Acid Rain units also subject to Subpart H.

#### **7. *How do I find out more about reporting using the EDR v2.1 format?***

More detailed information on the selection of record types for reporting and the use of specific columns within a record type for a particular program is included in the "*Revised EDR v2.1 Reporting Instructions*" (March 2003). You can find these instructions on EPA's Clean Air Markets Division website at [www.epa.gov/airmarkets/](http://www.epa.gov/airmarkets/).

**TABLE 1: EDR v2.1 ELECTRONIC DATA REPORTING RECORD TYPES**

RECORD TYPES			
GROUP	SUB-GROUP	RECORD TYPE	RECORD
Facility Information (100)	Facility Information	Facility Identification (Modified)	100
		Record Types Submitted (Optional)	101
		Facility Location and Identification Information	102
Monitoring Data (200)	Pollutant Gas Concentrations	SO <sub>2</sub> Concentration Data (Modified)	200
		NO <sub>x</sub> Concentration Data (Modified)	201
		CO <sub>2</sub> Concentration Data (Modified)	202
	Diluent Gas Concentrations	CO <sub>2</sub> Diluent Concentration Data (Modified)	210
		O <sub>2</sub> Diluent Concentration Data (Modified)	211
	Moisture Data	Moisture Data (Modified)	212
	Volumetric Flow	Volumetric Flow Data (Modified)	220
	Daily Quality Assurance Data and Results	Daily Calibration Test Data and Results	230
		Flow Daily Interference Check Results	231
	Reference Method Backup QA Data	Hourly Pollutant and Diluent Concentration Data from RM Backup Analyzers	260
		Quality Assurance Run Data for Reference Method Analyzers or Systems Used as Backup CEMS	261
		Reference Method Backup Flow Rate Monitor (Run Summary)	262
Unit Data (300)	Unit Operating and Cumulative Emissions Data	Unit Operating Parameters	300
		Quarterly Cumulative Emissions Data	301
		Oil Fuel Flow (Modified)	302
		Gas Fuel Flow (Modified)	303
		Quarterly Heat Input From Long Term Fuel Flow Measurements for Qualifying Low Mass Emission Units	305
		Cumulative NO <sub>x</sub> Mass Emissions Data	307
	SO <sub>2</sub> Mass Emissions Data	SO <sub>2</sub> Mass Emissions Data	310
		SO <sub>2</sub> Mass Emissions Alternative Estimation Parameters for Oil (Modified)	313
		SO <sub>2</sub> Mass Emissions Alternative Estimation Parameters for Natural Gas (Modified)	314
	NO <sub>x</sub> Emissions Data	NO <sub>x</sub> Emission Rate Data (Modified)	320
		NO <sub>x</sub> Emission Rate Alternative Estimation Parameters for Oil and Gas (Modified)	323
		NO <sub>x</sub> Emission Rate Estimation Based on Appendix E (Modified)	324
		NO <sub>x</sub> Emission Rate Estimation Based on Appendix E for Multiple Fuel Hours	325
		NO <sub>x</sub> Mass Emissions	328

**TABLE 1: EDR v2.1 ELECTRONIC DATA REPORTING RECORD TYPES**

RECORD TYPES			
GROUP	SUB-GROUP	RECORD TYPE	RECORD
Unit Data (300)	CO <sub>2</sub> Mass Emissions Data	CO <sub>2</sub> Mass Emissions Data	330
		CO <sub>2</sub> Mass Emissions Estimation Parameters	331
	Qualifying Low Mass Emissions Unit Data	Hourly Emissions Data for Qualifying Low Mass Emissions Units	360
Monitoring Plan Information (500)		Stack/Pipe Header Definition Table	503
		Unit Information	504
		Program Indicator for Report (Modified)	505
		EIA Cross Reference Information (Modified)	506
		Fuel Usage Data to Qualify as a Peaking Unit or an Acid Rain Program Gas-fired Unit	507
		Subpart H Reporting Frequency Change	508
		Monitoring Systems/Analytical Components Table (Modified)	510
		Formula Table (Modified)	520
		Span Table (Modified)	530
		Maximums, Minimums, Defaults and Constants (Modified)	531
		Unit and Stack Operating Load Data (Modified)	535
		Range of Operation, Normal Load, and Load Usage	536
		Fuel Flowmeter Data (Modified)	540
		Reasons for Monitoring System Downtime or Missing Parameter (Optional)	550
		Monitoring System Recertification, Maintenance, or Other Events	556
		Appendix E NO <sub>x</sub> Correlation Curve Segments (Modified)	560
		Monitoring Methodology Information (Modified)	585
		Control Equipment Information (Modified)	586
		Unit Fuel Type (Modified)	587
Certification Test Data (600)	Calibration/Error Tests	7-Day Calibration Error Test Data and Results	600
	Linearity Checks	Linearity Check Data	601
		Linearity Check Results	602
	Leak Checks	Flow Leak Check Results	603
	Flow/Load Checks	Reference Data for Flow-to-Load Ratio or Gross Heat Rate Evaluation	605
		Quarterly Flow-to-Load Ratio or Gross Heat Rate Check	606

**TABLE 1: EDR v2.1 ELECTRONIC DATA REPORTING RECORD TYPES**

RECORD TYPES			
GROUP	SUB-GROUP	RECORD TYPE	RECORD
Certification Test Data (600)	RATA/Bias Tests	RATA and Bias Test Data	610
		RATA and Bias Test Results (Modified)	611
		Reference Method Supporting Data for Flow RATA Tests	614
		Reference Method Supporting Data for Flow RATA Tests)	615
		Reference Method Supporting Data for Flow RATA Tests	616
	Cycle Time Test	Cycle Time Test Data and Results	621
	On Line/Off Line Calibration Demonstration	Qualifying Test for Off-line Calibration Error Tests	623
	Miscellaneous QA Test/Activity	Other QA Activities (Modified)	624
	Fuel Flowmeter Accuracy Tests	Fuel Flowmeter Accuracy Test (Modified)	627
		Accuracy Test for Orifice, Nozzle, or Venturi Type Fuel Flowmeters	628
	Quarterly Fuel Flow-to-Load Analysis	Baseline Data for Fuel-Flow-to-Load Ratio or Gross Heat Rate Check for Fuel Flowmeters (Modified)	629
		Quarterly Fuel-Flow-to-Load Test for Fuel Flowmeters (Modified)	630
	Alternative Monitoring Petition Data	Alternative Monitoring System Approval Petition Data	640
		Alternative Monitoring System Approval Petition Results and Statistics	641
	LME Certification	Qualifying Data for Low Mass Emissions Units Excepted Methodology (Modified)	645
	Appendix E Test Data	NO <sub>x</sub> Emission Rate Correlation Test Data (Modified)	650
		NO <sub>x</sub> Emission Rate Correlation Results	651
		Heat Input from Oil Combusted During Test	652
		Heat Input from Gas Combusted During Test	653
		Unit Group Testing (Modified)	660
	QA Test Extensions/Exemption Claims	Single-load Flow RATA Claim	695
		Fuel Flowmeter Accuracy Test Extension	696
		RATA Deadline Extension or Exemption (Modified)	697
		Quarterly QA Test Exemption Claim	698
		QA Test Extension Claim Based on Grace Period	699

**TABLE 1: EDR v2.1 ELECTRONIC DATA REPORTING RECORD TYPES**

RECORD TYPES			
GROUP	SUB-GROUP	RECORD TYPE	RECORD
Certification Data (900)	Certification Data	Part 75 Certification Statement and Designated Representative Signature	900
		Part 72 Certification Statement	901
		Cover Letter Text (file specific) (Optional)	910
		Cover Letter Text (not specific to file) (Optional)	920
		Subpart H Certification Statement and NO <sub>x</sub> Authorized Account Representative Signature	940
		Subpart H General Certification Statement	941
		Contact Person Record (Optional)	999

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

FACILITY INFORMATION										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
FACILITY INFORMATION										
Facility Identification  (Modified)	100	1	Record type code				3	I3		
		4	Facility/ORISPL number				6	I6		
		10	Calendar quarter data contained in report				1-4	1	I1	
		11	Calendar year data contained in report				YYYY	≥1993	4	I4
		15	EDR version				V2.1	5	A5	
Total Record Length							19			
Record Types Submitted  (Optional)	101	1	Record type code				3	I3		
		4	Unit ID				6	A6		
		10	Stack/Pipe ID				6	A6		
		16	Parameter reported <sup>1</sup>				7	A7		
		23	Record type used				3	I3		
	26	Number of records	1-9999	4	I4					
Total Record Length							29			
Facility Location and Identification Information	102	1	Record type code				3	I3		
		4	Plant name				20	A20		
		24	[Reserved]				12			
		36	EPA AIRS facility system (AFS) ID				10	A10		
		46	State facility ID				15	A15		
		61	Source category/type				20	A20		
		81	Primary SIC code				4	I4		
		85	State postal abbreviation				2	A2		
		87	County code (FIPS)				3	I3		
		90	[Reserved]				1			
		91	Latitude				DDMMSS	6	I6	
		97	Longitude				DDDDMMSS	7	I7	
Total Record Length							103			

<sup>1</sup> Available codes are: CO2CONC, CO2MASS, DILUENT, FLOWRTE, GASRATE, HEATINP, LOWMASS, MOISTUR, NOXCONC, NOXMASS, NOXRATE, OILRATE, OPERATN, OSNSUMM, QTRSUMM, SO2CONC, SO2MASS

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

MONITORING DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
POLLUTANT GAS CONCENTRATIONS										
SO <sub>2</sub> Concentration Data  (Modified)  ARP only	200	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date				6	I6		
		22	Hour				HH	00-23	2	I2
		24	Percent monitor data availability for SO <sub>2</sub>				%	0.0-100.0	5	F5.1
		29	Average SO <sub>2</sub> concentration for the hour				ppm		6	F6.1
		35	Average SO <sub>2</sub> concentration for the hour adjusted for bias				ppm		6	F6.1
		41	Method of determination code					01-10,12,16,17,19,20,21,22,23,54,55	2	I2
Total Record Length							42			
NO <sub>x</sub> Concentration Data  (Modified)	201	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date				6	I6		
		22	Hour				HH	00-23	2	I2
		24	Average NO <sub>x</sub> concentration for the hour				ppm		6	F6.1
		30	Method of determination code					01-04,06-12, 17,19, 20, 21,22, 23, 54,55	2	I2
		32	Adjusted average NO <sub>x</sub> concentration for the hour				ppm		6	F6.1
		38	Percent monitor data availability for NO <sub>x</sub> concentration				%	0.0-100.0	5	F5.1
Total Record Length							42			
CO <sub>2</sub> Concentration Data  (Modified)  ARP Only	202	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date				6	I6		
		22	Hour				HH	00-23	2	I2
		24	Average CO <sub>2</sub> concentration for the hour				%		6	F6.1
		30	Method of determination code					01-04,06-10,12, 17, 20,54, 55	2	I2
		32	Percent monitor data availability for CO <sub>2</sub> concentration				%	0.0-100.0	5	F5.1
		Total Record Length							36	



**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

MONITORING DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
DILUENT GAS CONCENTRATIONS								
CO <sub>2</sub> Diluent Concentration Data  (Modified)	210	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date				6	I6
		22	Hour				2	I2
		24	Average CO <sub>2</sub> concentration for the hour				5	F5.1
		29	Method of determination code				2	I2
		31	Percent monitor data availability for CO <sub>2</sub> concentration				5	F5.1
Total Record Length							35	
O <sub>2</sub> Diluent Concentration Data  (Modified)	211	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date				6	I6
		22	Hour				2	I2
		24	Average O <sub>2</sub> concentration for the hour				5	F5.1
		29	Method of determination code				2	I2
		31	Moisture basis of measurement (W-wet or D-dry (for O <sub>2</sub> used for moisture calculations), Blank (for O <sub>2</sub> used only for diluent purposes))				1	A1
32	Percent monitor data availability for O <sub>2</sub> concentration	5	F5.1					
Total Record Length							36	
MOISTURE DATA								
Moisture Data  (Modified)	212	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date				6	I6
		22	Hour				2	I2
		24	Average moisture content of flue gases for the hour				5	F5.1
		29	Formula ID				3	A3
		32	Method of determination code				2	I2
34	Percent monitor data availability for moisture	5	F5.1					
Total Record Length							38	

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

MONITORING DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
VOLUMETRIC FLOW								
Volumetric Flow Data  (Modified)	220	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date		YYMMDD		6	I6
		22	Hour		HH	00-23	2	I2
		24	Percent monitor data availability for volumetric flow		%	0.0-100.0	5	F5.1
		29	Average volumetric flow rate for the hour		scfh		10	I10
		39	Average volumetric flow rate for the hour adjusted for bias		scfh		10	I10
		49	[Reserved]				5	
		54	Operating load range corresponding to gross load			01-20	2	I2
		56	Method of determination code			01-12, 20, 54, 55	2	I2
Total Record Length							57	

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

MONITORING DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
DAILY QUALITY ASSURANCE DATA AND RESULTS										
Daily Calibration Test Data and Results	230	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date				YYMMDD	6	I6	
		22	Hour				HH	00-23	2	I2
		24	Instrument span <sup>2</sup>					13	F13.3	
		37	Reference value <sup>2</sup>					13	F13.3	
		50	Measured value <sup>2</sup>					13	F13.3	
		63	Results (calibration error or  R-A )				% ,ppm	0.0-100.0	5	F5.1
		68	Alternative performance specification (APS) flag <sup>3</sup>					0,1	1	I1
		69	[Reserved]						2	
		71	Calibration gas or reference signal level (Z-zero, M-mid, H-high)					Z,M,H	1	A1
		72	Span scale (H-high, L-low)					H,L	1	A1
Total Record Length							72			
Flow Daily Interference Check Results	231	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date				YYMMDD	6	I6	
		22	Hour				HH	00-23	2	I2
		24	Status (P-pass, F-fail)					P,F	1	A1
		25	[Reserved]						2	
Total Record Length							26			
REFERENCE METHOD BACKUP QA DATA										
Hourly Pollutant and Diluent Concentration Data from RM Backup Analyzers	260	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Reference method component ID				3	A3		
		13	Reference method monitoring system ID				3	A3		
		16	Parameter monitored (SO2, NOX, CO2, O2)				4	A4		
		20	Run number					2	I2	
		22	Date				YYMMDD	6	I6	
		28	Hour				HH	00-23	2	I2
		30	Unadjusted (raw) average pollutant or diluent concentration for the hour				% , ppm		7	F7.2
		37	Adjusted average pollutant or diluent concentration for the hour				% , ppm		7	F7.2
Total Record Length							43			

<sup>2</sup> Report span, reference values, and measured values in calibration span units defined in RT 530, column 62.

<sup>3</sup> If an alternative performance specification (|R-A|) is used for SO<sub>2</sub> or NO<sub>x</sub> low emitters or for low-span DP-type flow monitors, according to section 3 of Appendix A to Part 75, a 1 is reported; a zero is reported otherwise. For CO<sub>2</sub> or O<sub>2</sub> |R-A| is the normal calculation method; therefore, a 0 (zero) should always be reported for CO<sub>2</sub> and O<sub>2</sub> and there is no alternative specification.

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

MONITORING DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Quality Assurance Run Data for Reference Method Analyzers or Systems Used as Backup CEMS	261	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Reference method component ID				3	A3
		13	Reference method monitoring system ID				3	A3
		16	Run number				2	I2
		18	RM run start date				6	I6
		24	RM run start hour				2	I2
		26	RM run end date				6	I6
		32	Rm run end hour				2	I2
		34	Type of analyzer/system				3	A3
		37	Moisture basis of RM analysis				3	A3
		40	Instrument span (as defined in App A, Part 60)				5	I5
		45	Dilution factor		5	I5		
		50	Reference zero gas concentration		7	F7.2		
		57	Initial (pre-test) calibration response--zero gas		7	F7.2		
		64	Pre-test calibration error--zero gas (% of span)		5	F5.1		
		69	Reference mid-level gas concentration		7	F7.2		
		76	Initial (pre-test) calibration response--mid gas		7	F7.2		
		83	Pre-test calibration error--mid gas (% of span)		5	F5.1		
		88	Reference high-level gas concentration		7	F7.2		
		95	Initial (pre-test) calibration response--high gas		7	F7.2		
		102	Pre-test calibration error--high gas (% of span)		5	F5.1		
		107	Upscale gas used during run (M-mid, H-high)		1	A1		
		108	Pre-run system response--zero gas		7	F7.2		
		115	Pre-run system bias (non-dilution) or calibration error (dilution)--zero gas (% of span)		5	F5.1		
		120	Post-run system response--zero gas		7	F7.2		
		127	Post-run system bias (non-dilution) or calibration error (dilution)--zero gas (% of span)		5	F5.1		
		132	Pre-run system response--upscale gas		7	F7.2		
		139	Pre-run system bias (non-dilution) or calibration error (dilution)--upscale gas (% of span)		5	F5.1		
		144	Post-run system response--upscale gas		7	F7.2		
		151	Post-run system bias (non-dilution) or calibration error (dilution)--upscale gas (% of span)		5	F5.1		
		156	Zero drift (% of span)		5	F5.1		
161	Calibration drift (% of span)	5	F5.1					
166	Stack gas density adjustment factor	5	F5.3					
Total Record Length							170	

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

MONITORING DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
Reference Method Backup Flow Rate Monitor (Run Summary)	262	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Reference method component ID				3	A3		
		13	Reference method monitoring system ID				3	A3		
		16	Run date				YYMMDD	6	I6	
		22	Run hour				HH	00-23	2	I2
		24	Number of traverse points					2	I2	
		26	(Square root of $\Delta P$ ) <sub>avg.</sub>				in. H <sub>2</sub> O	5	F5.2	
		31	T <sub>s</sub> , stack temperature				°F	4	I4	
		35	P <sub>bar</sub> , barometric pressure, in. Hg				in. Hg	5	F5.2	
		40	P <sub>g</sub> , stack static pressure, in. H <sub>2</sub> O				in. H <sub>2</sub> O	5	F5.2	
		45	% CO <sub>2</sub> in stack gas, dry basis				%	5	F5.2	
		50	% O <sub>2</sub> in stack gas, dry basis				%	5	F5.2	
		55	% moisture in stack gas				% H <sub>2</sub> O	5	F5.2	
		60	M <sub>d</sub> , stack gas molecular weight, dry basis				lbs/lbs-mole	5	F5.2	
		65	M <sub>s</sub> , stack gas molecular weight, wet basis				lbs/lbs-mole	5	F5.2	
		70	Pitot tube or probe coefficient					5	F5.3	
		75	Date of latest pitot tube or probe calibration				YYMMDD	6	I6	
		81	A <sub>s</sub> , stack or duct cross-sectional area at test port				ft <sup>2</sup>	6	F6.1	
		87	Total volumetric flow rate				scfh	10	I10	
97	Average axial velocity	ft/sec	8	F8.3						
	105	Reference method probe type				3	A3			
Total Record Length							107			

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
UNIT OPERATING AND CUMULATIVE EMISSIONS DATA								
Unit Operating Parameters	300	1	Record type code				3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Date		YYMMDD		6	I6
		16	Hour		HH	00-23	2	I2
		18	Unit operating time			0.00-1.00	4	F4.2
		22	Gross unit load during unit operation		MWe		6	I6
		28	Steam load during unit operation		1000 lb/hr		6	I6
		34	Operating load range corresponding to gross load during unit operation			01-20	2	I2
		36	Hourly heat input rate during unit operation for all fuels		mmBtu/hr		7	F7.1
		43	Heat input formula ID				3	A3
		46	F-factor for heat input calculation	CEMS Only			10	F10.1
		56	Use of diluent cap for heat input calculation for this hour (Y-cap used)	CEMS Only		Y	1	A1
		57	Total heat input for the hour	Optional	mmBtu		7	F7.1
Total Record Length							63	

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Quarterly Cumulative Emissions Data   <								

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
UNIT OPERATING AND CUMULATIVE EMISSIONS DATA								
Oil Fuel Flow	302	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
(Modified)		13	Date		YYMMDD		6	I6
		19	Hour		HH	00-23	2	I2
		21	Mass flow rate of oil during oil combustion		lb/hr		10	F10.1
		31	Source of data code for mass oil flow rate <sup>4</sup>			0-6,9	1	I1
		32	Operating load range corresponding to gross load			01-20	2	I2
		34	Gross calorific value (GCV) of oil				10	F10.1
		44	[Reserved]				1	
		45	Heat input rate from oil during oil combustion		mmBtu/hr		7	F7.1
		52	Fuel usage time			0.01-1.00	4	F4.2
		56	Type of oil <sup>5</sup>				3	A3
		59	Volumetric flow rate of oil during oil combustion				10	F10.1
		69	Units of measure for volumetric oil flow rate <sup>6</sup>				5	A5
		74	Source of data code for volumetric oil flow rate <sup>4</sup>			0,1,3,5,6,9	1	I1
		75	Density of oil				8	F8.5
		83	Units of measure for density of oil <sup>6</sup>				5	A5
		88	[Reserved]				1	
		88	Flag to indicate multiple or single fuel types combusted (M-multiple, S-single)			M,S	1	A1
		90	Type of oil sampling and GCV value used in calculations <sup>7</sup>				2	I2
		92	Type of oil sampling and density value used in calculations <sup>7</sup>				2	I2
Total Record Length							93	

- <sup>4</sup>
- 0 = Measured data (using a mass flowmeter)
  - 1 = Substitute data using lookback procedures
  - 2 = Mass flowrate derived from volumetric measurement (Column 31 only)
  - 3 = Maximum fuel flow rate (simplified missing data procedure for peaking units)
  - 4 = Emergency fuel (maximum unit fuel flow rate) (Column 31 only)
  - 5 = Ignitor oil from tank measurements
  - 6 = Uncertified OFFEM to measure ignitor oil
  - 9 = Default minimum fuel flow rate

- <sup>5</sup> See instructions for allowable codes.

- <sup>6</sup> Limited to a Table of Codes:
- |                      |  |
|----------------------|--|
| VOLUMETRIC OIL FLOW: | SCFH (scf/hr); GALHR (gal/hr); BBLHR (barrels/hr), M3HR (m <sup>3</sup> /hr) |
| DENSITY:             | LBSCF (lb/scf); LBGAL (lb/gal); LBBBL (lb/barrel), LBM3 (lb/m <sup>3</sup> ) |

- <sup>7</sup> Type of oil sampling and value used:
- 0 = Actual measured value from daily manual sample
  - 1 = Actual measured value from flow proportional/weekly composite sample
  - 2 = Actual measured value from oil tank sample
  - 4 = Highest sampled value in previous calendar year from oil tank sampling (or a higher sampled value, superseding the assumed value)
  - 5 = Highest sampled value in previous calendar year from as delivered sample (or a higher sampled value, superseding the assumed value)
  - 6 = Maximum value allowed by contract (or a higher oil tank sample value, superseding the assumed value)
  - 7 = Maximum value allowed by contract (only if higher than measured oil as delivered sample)
  - 8 = Maximum potential value from Table D-6 for missing data or emergency fuel
  - 10 = Highest sampled value in previous 30 days



**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
UNIT OPERATING AND CUMULATIVE EMISSIONS DATA								
Gas Fuel Flow	303	1	Record type code				3	I3
(Modified)		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Date		YYMMDD		6	I6
		19	Hour		HH	00-23	2	I2
		21	Flow rate of gas during gas combustion		100 scfh		10	F10.1
		31	Source of data code for gas flow rate <sup>8</sup>			0-4	1	I1
		32	Operating load range corresponding to gross load			01-20	2	I2
		34	Gross calorific value (GCV) of gas		Btu/100 scf		10	F10.1
		44	[Reserved]				1	
		45	Heat input rate from gas during gas combustion		mmBtu/hr		7	F7.1
		52	Fuel usage time			0.01-1.00	4	F4.2
		56	Type of gas <sup>5</sup>				3	A3
		59	Flag to indicate multiple or single fuel types combusted (M-multiple, S-single fuel)			M,S	1	A1
		60	Type of gas sampling and GCV value used in calculations <sup>9</sup>			0-2,4-8,10	2	I2
		Total Record Length						

- <sup>8</sup>
- 0 Hourly Measurement
  - 1 Substitute Data Using Lookback Procedures
  - 2 Default Minimum Fuel Flow Rate
  - 3 Maximum Unit Fuel Flow Rate (simplified missing data procedure for peaking units)
  - 4 Emergency Fuel (maximum unit fuel flow rate)

- <sup>9</sup>
- 0 Actual Measured GCV From Most Recent Monthly Sampling
  - 1 Highest of All Sampled Values in Previous Calendar Year (or a higher sampled value, superseding the assumed value)
  - 2 Maximum Value Allowed by Contract ( or a higher sampled value, superseding the assumed value)
  - 4 Actual Measured GCV From Continuous (hourly) Sampling
  - 5 Gas Fuel in Lots, as Delivered Sampling: Highest of All Sampled Values in Previous Calendar Year (or a higher sampled value, superseding the assumed value)
  - 6 Gas Fuel in Lots, as Delivered Sampling: Maximum Value Allowed by Contract ( or a higher sampled value, superseding the assumed value)
  - 7 Actual Measured GCV From Daily Sampling
  - 8 Missing Data Based on Table D-6 Default
  - 10 Actual GCV From Most Recent Shipment or Lot

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Quarterly Heat Input From Long Term Fuel Flow Measurements for Qualifying Low Mass Emission Units	305	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Type of fuel <sup>5</sup>				3	A3
		16	Quarter or reporting period			1-4, 2A,2S	2	A2
		18	Year		YYYY		4	I4
		22	Quarterly or reporting period fuel flow				10	I10
		32	Units of measure for fuel flow <sup>10</sup>				5	A5
		37	Gross calorific value				10	F10.1
		47	Gross calorific value units of measure <sup>11</sup>				8	A8
		55	Total heat input		mmBtu		10	I10
Total Record Length							64	

<sup>10</sup> Limited to a table of codes: LB, SCF, GAL

<sup>11</sup> Limited to a table of codes: BTU/LB, BTU/SCF, BTU/GAL

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
UNIT OPERATING AND CUMULATIVE EMISSIONS DATA								
Cumulative NO <sub>x</sub> Mass Emissions Data  ARP LME and Subpart H Only	307	1	Record type code		YYYYMMDD		3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Date of report generation				8	I8
		18	Reporting period NO <sub>x</sub> tons emitted				10	F10.1
		28	Cumulative ozone season NO <sub>x</sub> tons emitted		10		F10.1	
		38	Reporting period heat input		10		F10.1	
		48	Cumulative ozone season heat input		10		F10.1	
		58	Total reporting period operating hours		hr		4	I4
	62	Cumulative ozone season operating hours	hr	5	I5			
	67	Cumulative annual NO <sub>x</sub> tons emitted	ton	10	F10.1			
	77	Cumulative annual total heat input	Subpart H only mmBtu	10	I10			
	87	Cumulative annual unit/stack/pipe operating hours	Subpart H only hr	4	I4			
Total Record Length							90	
SO2 MASS EMISSIONS DATA								
SO <sub>2</sub> Mass Emissions Data  ARP Only	310	1	Record type code		YYMMDD	00-23	3	I3
		4	Unit/Stack ID				6	A6
		10	Date				6	I6
		16	Hour		HH		2	I2
		18	SO <sub>2</sub> mass emission rate for the hour		lb/hr		7	F7.1
		25	SO <sub>2</sub> mass emission rate during unit operation based on adjusted values		lb/hr		7	F7.1
		32	Formula ID from monitoring plan for hourly SO <sub>2</sub> emissions				3	A3
		35	Total SO <sub>2</sub> mass emissions for the hour		Optional lb		7	F7.1
Total Record Length							41	

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
SO2 MASS EMISSIONS DATA								
SO <sub>2</sub> Mass Emissions Alternative Estimation Parameters for Oil  (Modified)  <b>ARP Only</b>	313	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Date		YYMMDD		6	I6
		19	Hour		HH	00-23	2	I2
		21	Sulfur content of oil sample used to calculate SO <sub>2</sub> mass emission rate		%	.01-5.0	5	F5.2
		26	[Reserved]				3	
		29	[Reserved]				1	
		30	SO <sub>2</sub> mass emission rate from oil during oil combustion		lb/hr		7	F7.1
		37	Total SO <sub>2</sub> mass emissions from oil	Optional	lb		7	F7.1
		44	Type of sulfur sampling and value used in calculations <sup>12</sup>			1-9	2	I2
Total Record Length							45	
SO <sub>2</sub> Mass Emissions Alternative Estimation Parameters for Gas  (Modified)  <b>ARP Only</b>	314	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Date		YYMMDD		6	I6
		19	Hour		HH	00-23	2	I2
		21	Sulfur content of gas sample used to calculate SO <sub>2</sub> mass emission rate		grains/100 scf		8	F8.1
		29	[Reserved]				1	
		30	Default SO <sub>2</sub> emission rate		lb/mmBtu		7	F7.5
		37	SO <sub>2</sub> mass emission rate from gas during gas combustion		lb/hr		8	F8.5
		45	Total SO <sub>2</sub> mass emissions from gas	Optional	lb		7	F7.1
		52	Type of sulfur sampling and value used in calculations <sup>12</sup>			0,3,5, 7-10	2	I2
Total Record Length							53	

- <sup>12</sup> Type of data for sulfur content:
- 0 = Actual measured hourly average sample from GCH (gas)
  - 1 = Actual measured value from oil composite sample
  - 2 = Actual measured value from oil tank sample
  - 3 = Highest daily sample in 30 daily samples (gas or oil)
  - 4 = Highest sampled value in previous calendar year from oil tank sampling (or a higher sampled value, superseding the assumed value)
  - 5 = Highest sampled value in previous calendar year from as delivered sample (gas or oil) (or a higher sampled value, superseding the assumed value)
  - 6 = Maximum value allowed by contract (or a higher oil tank sample value, superseding the assumed value)
  - 7 = Maximum value allowed by contract (or a higher sample value, superseding the assumed value)
  - 8 = Maximum potential value from Table D-6 for oil or gas for missing data or emergency fuel
  - 9 = Actual measured value from daily sample
  - 10 = Actual measured value from most recent shipment or lot (gas)

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
NO <sub>x</sub> EMISSIONS DATA								
NO <sub>x</sub> Emission Rate Data  (Modified)	320	1	Record type code		YYMMDD		3	I3
		4	Unit/Stack ID				6	A6
		10	Monitoring system ID				3	A3
		13	Date				6	I6
		19	Hour				2	I2
		21	Percent monitor data availability for NO <sub>x</sub> emission rate calculations				5	F5.1
		26	F-factor converting NO <sub>x</sub> concentrations to emission rates				10	F10.1
		36	Average NO <sub>x</sub> emission rate for the hour				6	F6.3
		42	Adjusted average NO <sub>x</sub> emission rate for the hour				6	F6.3
		48	Operating load range corresponding to gross load for the hour				2	I2
		50	Formula ID from monitoring plan for hourly NO <sub>x</sub> emission rate				3	A3
		53	Method of determination code				2	I2
Total Record Length							54	
NO <sub>x</sub> Emission Rate Alternative Estimation Parameters for Oil and Gas  (Modified)	323	1	Record type code		YYMMDD		3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Date				6	I6
		19	Hour				2	I2
		21	Parameters status flag (Y-in spec, N-out of spec, X-parameters data missing or invalid, W-operation above highest tested heat input point, Z-operation below lowest tested heat input point, E-Emergency Fuel, U-Uncontrolled)				1	A1
		22	Average NO <sub>x</sub> emission rate for the hour				6	F6.3
		28	[Reserved]				6	
		34	[Reserved]				6	
40	Segment ID of correlation curve	3	A3					
Total Record Length							42	

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
NO <sub>x</sub> EMISSIONS DATA										
NO <sub>x</sub> Emission Rate Estimation Based on Appendix E  (Modified)	324	1	Record type code				3	I3		
		4	Unit/Pipe ID				6	A6		
		10	NO <sub>x</sub> monitoring system ID				3	A3		
		13	Fuel flow monitoring system ID				3	A3		
		16	Date				6	I6		
		22	Hour				2	I2		
		24	Parameters status flag (Y-in spec, N-out of spec, X-parameters data missing or invalid, W-operation above highest tested heat input point, Z-operation below lowest tested heat input point, E-Emergency fuel, U-Uncontrolled)				1	A1		
		25	Average NO <sub>x</sub> emission rate for the hour for fuel type				6	F6.3		
		31	NO <sub>x</sub> mass emission rate for the hour for fuel type				11	F11.2		
		42	Segment ID of correlation curve				3	A3		
45	Flag to indicate multiple or single fuel types combusted (M-multiple, S-single)	1	A1							
Total Record Length							45			
NO <sub>x</sub> Emission Rate Estimation Based on Appendix E for Multiple Fuel Hours	325	1	Record type code				3	I3		
		4	Unit/Pipe ID				6	A6		
		10	Date				6	I6		
		16	Hour				2	I2		
		18	Average NO <sub>x</sub> emission rate for all fuels during multiple fuel hours				6	F6.3		
Total Record Length							23			
NO <sub>x</sub> Mass Emissions  Subpart H Only	328	1	Record type code				3	I3		
		4	Unit/Stack/Pipe ID				6	A6		
		10	Date				6	I6		
		16	Hour				2	I2		
		18	Unit operating time				4	F4.2		
		22	NO <sub>x</sub> mass emission rate during unit operation				Optional	lb/hr	10	F10.1
		32	Total NO <sub>x</sub> mass emissions for the hour					lb	10	F10.1
		42	Formula ID from monitoring plan for total NO <sub>x</sub> mass						3	A3
		45	NO <sub>x</sub> methodology for the hour <sup>5</sup>						10	A10
		55	Heat input rate methodology for the hour <sup>5</sup>						10	A10
Total Record Length							64			

**TABLE 2: QUARTERLY EMISSION DATA FILE RECORD STRUCTURES**

UNIT DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
CO2 MASS EMISSIONS DATA								
CO2 Mass Emissions Data  ARP Only	330	1	Record type code		YYMMDD		3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Date				6	I6
		16	Hour		HH	00-23	2	I2
		18	CO2 mass emission rate for the hour		ton/hr	10	F10.1	
		28	Formula ID from monitoring plan for hourly CO2 mass emission rate		3	A3		
		31	[Reserved]		2			
		33	Total CO2 mass emissions for the hour	Optional	ton		10	F10.1
		43	Use of diluent cap value for CO2 calculation for this hour (Y-cap used)	CEMS only		Y	1	A1
Total Record Length							43	
CO2 Mass Emissions Estimation Parameters  ARP Only	331	1	Record type code		YYMMDD		3	I3
		4	Unit/Stack ID				6	A6
		10	Date				6	I6
		16	Total daily combustion-related CO2 mass emissions adjusted for CO2 retained in flyash		ton	10	F10.1	
		26	Total daily sorbent-related CO2 mass emissions		ton	10	F10.1	
		36	Total daily CO2 mass emissions		ton	10	F10.1	
Total Record Length							45	
QUALIFYING LOW MASS EMISSIONS UNIT DATA								
Hourly Emissions Data for Qualifying Low Mass Emissions Units  LME Only	360	1	Record type code		YYMMDD		3	I3
		4	Unit ID				6	A6
		10	Date				6	I6
		16	Hour		HH	00-23	2	I2
		18	Unit operating time <sup>13</sup>		MWe	0.0-1.00	4	F4.2
		22	Gross unit load during unit operation			6	I6	
		28	Steam load			6	I6	
		34	Total hourly heat input (from all fuels)		mmBtu	7	F7.1	
		41	Fuel type <sup>14</sup>			3	A3	
		44	SO2 mass emissions	ARP only	lb		6	F6.1
		50	NOx mass emissions		lb		6	F6.1
		56	CO2 mass emissions	ARP only	ton		9	F9.1
		65	Control status (C-controlled, U-uncontrolled)			C,U	1	A1
		66	NOx methodology for the hour <sup>5</sup>				10	A10
		76	Heat input rate methodology for the hour <sup>5</sup>				10	A10
Total Record Length							85	

<sup>13</sup> For LME units using long term fuel flow and reporting RT 305, report 1.00 for each hour in which any operation occurred.

<sup>14</sup> See instructions for allowable codes. If multiple fuels are burned, report the fuel used to determine mass emissions (fuel with the highest SO<sub>2</sub>, CO<sub>2</sub>, and/or NO<sub>x</sub> emission factor). See §§ 75.19(c)(3)(i), (4)(i), and (5)(i).

**TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES**

MONITORING PLAN INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Stack/Pipe Header Definition Table	503	1	Record type code				3	I3
		4	Stack/Pipe ID				6	A6
		10	Stack/Pipe description or name				20	A20
		30	Unit ID for associated unit				6	A6
		36	[Reserved]				1	
		37	[Reserved]				6	
		43	[Reserved]				6	
		49	Activation date		YYMMDD		6	I6
		55	Retirement date		YYMMDD		6	I6
		61	Bypass stack flag (B-bypass)			B	1	A1
		62	Stack exit height above ground level		ft		4	I4
		66	Ground level elevation above sea level		ft		5	I5
		71	Inside cross-sectional area at flue exit		ft <sup>2</sup>		4	I4
		75	Inside cross-sectional area at flow monitor location		ft <sup>2</sup>		4	I4
Total Record Length							78	
Unit Information	504	1	Record type code				3	I3
		4	Unit ID				6	A6
		10	Unit type <sup>5</sup>				3	A3
		13	Maximum hourly heat input capacity		mmBtu		7	F7.1
		20	Date of first commercial operation		YYYYMMDD		8	I8
		28	Unit retirement date		YYYYMMDD		8	I8
		36	Stack exit height above ground level		ft		4	I4
		40	Ground level elevation above sea level		ft		5	I5
		45	Inside cross-sectional area at flue exit		ft <sup>2</sup>		4	I4
		49	Inside cross-sectional area at flow monitor location		ft <sup>2</sup>		4	I4
Total Record Length							52	
Program Indicator for Report  (Modified)	505	1	Record type code				3	I3
		4	Unit ID				6	A6
		10	Program/Reporting requirements for which EDR is submitted <sup>15</sup>				10	A10
		20	Unit classification <sup>5</sup>				2	A2
		22	Reporting frequency (OS-ozone season, Q-quarterly)			OS,Q	2	A2
		24	Program participation date		YYYYMMDD		8	I8
		32	State regulation code (per State instructions)	Subpart H only			10	A10
		42	State or local regulatory agency code (see instructions)	Subpart H only			4	A4
Total Record Length							45	
EIA Cross Reference Information  (Modified)	506	1	Record type code				3	I3
		4	Unit ID				6	A6
		10	Acid Rain Program or Subpart H monitoring location ID				6	A6
		16	EIA boiler ID				5	A5
		21	EIA flue ID				5	A5
		26	EIA reporting year				4	I4
		30	EIA reporting indicator (N-not reporting EIA forms)			N	1	A1
		31	[Reserved]				6	
		37	EIA facility number				6	I6
Total Record Length							42	

<sup>15</sup> Available codes are: ARP, , OTC-SUBH, SUBH,



**TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES**

MONITORING PLAN INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Fuel Usage Data to Qualify as a Peaking Unit or an Acid Rain Program Gas-Fired Unit	507	1	Record type code				3	I3
		4	Unit ID				6	A6
		10	Current calendar year or ozone season		YYYY		4	I4
		14	Ozone Season or Year 1		YYYY		4	I4
		18	Ozone Season or Year 1 type (P-projected, A-actual, D-operating data)			P,A,D	1	A1
		19	Ozone Season or Year 1 % capacity for peaking units or % heat input for gaseous fuel		%	0.0-100.0	5	F5.1
		24	Ozone Season or Year 2		YYYY		4	I4
		28	Ozone Season or Year 2 type (P-projected, A-actual, D-operating data)			P,A,D	1	A1
		29	Ozone Season or Year 2 % capacity for peaking units or % heat input from gaseous fuel		%	0.0-100.0	5	F5.1
		34	Ozone Season or Year 3		YYYY		4	I4
		38	Ozone Season or Year 3 type (P-projected, A-actual, D-operating data)			P,A,D	1	A1
		39	Ozone Season or Year 3 % capacity for peaking units or % heat input from gaseous fuel		%	0.0-100.0	5	F5.1
		44	Three ozone season or year average annual capacity for peaking units or % heat input from gaseous fuel		%	0.0-100.0	5	F5.1
		49	Type of qualification (GF-gas-fired unit, PK-peaking unit, SK-ozone season peaking unit)			GF,PK, SK	2	A2
		51	Method of qualifying as a peaking unit or as a gas-fired unit per § 72.2 <sup>5</sup>				3	A3
Total Record Length							53	
Subpart H Reporting Frequency Change	508	1	Record type code				3	I3
		4	Stack/Unit/Pipe ID				6	A6
		10	New reporting frequency (OS-ozone season only, Q-quarterly)			OS, Q	2	A2
		12	Begin date of new reporting frequency		YYYYMMDD		8	I8
		20	[Reserved]				8	
Subpart H Only		28	[Reserved]				1	
		Total Record Length						
Monitoring Systems/ Analytical Components Table (Modified)	510	1	Record type code				3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Status (A-add, C-correct, D-delete, U-unchanged)			A,C,D,U	1	A1
		17	System parameter monitored <sup>16</sup>				4	A4
		21	Primary/backup designation <sup>17</sup>				2	A2
		23	Component type code <sup>18</sup>				4	A4
		27	Sample acquisition method <sup>5</sup>				3	A3
		30	Manufacturer				25	A25
		55	Model/version				15	A15
		70	Serial number				20	A20
		90	[Reserved]				6	
		96	[Reserved]				4	
		100	First date system reported data		YYYYMMDD		8	I8
108	Last date system reported data		YYYYMMDD		8	I8		
Total Record Length							115	

<sup>16</sup> Limited to a table of codes: System Parameter: CO2, FLOW, GAS, H2O, LTGS, LTOL, NOX, NOXC, O2, OILM, OILV, OP, SO2

<sup>17</sup> Limited to a table of codes: Primary/Backup Designation: P-primary, B-regular non-redundant backup, DB-data backup, RB-redundant backup, RM-reference method backup, CI-certified monitor at control device inlet

<sup>18</sup> Limited to a table of codes: Component Type: BGFF, BOFF, CALR, CO2, CO2A, CO2H, CO2L, DAHS, DL, DP, FLC, FLOW, GCH, GFFM, H2O, NOX, NOXA, NOXH, NOXL, O2D, O2DA, O2DH, O2DL, O2W, O2WA, O2WD, O2WH, O2WL, OFFM, OP, PLC, PRB, PRES, SO2, SO2A, SO2H, SO2L, TANK, TEMP

**TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES**

MONITORING PLAN INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Formula Table  (Modified)	520	1	Record type code				3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Submission status (A-add, C-correct, D-delete, U-unchanged)			A,C,D,U	1	A1
		11	Formula ID				3	A3
		14	Parameter monitored <sup>5</sup>				4	A4
		18	Formula code <sup>5</sup>				5	A5
		23	Formula text				200	A200
Total Record Length							222	
Span Table  (Modified)	530	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Parameter monitored <sup>5</sup>				4	A4
		14	Scale (H-high, L-low)			H,L	1	A1
		15	Method for calculating MPC/MEC/MPF (F-formula, HD-historical data, PL-permit limit, OL-other limit, TR-test results, TB-table in Part 75, ME-manufacturer's estimate, GS-gas fired only)			F,HD, OL,PL, ME,TR, TB,GS	2	A2
		17	MPC/MEC/MPF <sup>19</sup>				13	F13.3
		30	Maximum potential NO <sub>x</sub> emission rate		lb/mmBtu		6	F6.3
		36	Span value in units of daily calibration				13	F13.3
		49	Full scale range in units of daily calibration				13	F13.3
		62	Daily calibration units of measure <sup>20</sup>				5	A5
		67	[Reserved]				1	
		68	Span effective date		YYMMDD		6	I6
		74	Span effective hour		HH		2	I2
		76	Span inactivation date		YYMMDD		6	I6
		82	Span inactivation hour		HH		2	I2
		84	Dual spans required (D-dual ranges required/installed, O-dual ranges required/use of optional default high range value elected) (Blank if not applicable)			D,O	1	A1
		85	Default high range value				5	I5
		90	Flow rate span value in SCFH		scfh		9	I9
		99	Flow rate full scale value in SCFH		scfh		9	I9
Total Record Length							107	

<sup>19</sup> Provide SO<sub>2</sub> and NO<sub>x</sub> MPC/MEC in ppm, rounded to the nearest whole number. Provide CO<sub>2</sub> MPC in %. Provide flow maximum potential flowrate (MPF) in scfh.

<sup>20</sup> For SO<sub>2</sub> and NO<sub>x</sub> use PPM. For CO<sub>2</sub> or O<sub>2</sub> use %. For flow use units corresponding to calibration as follows: ACFH, ACFM, AFPM, INH2O, KACFH, KACFM, KAFPM, KSCFH, KSCFM, KSFP, MACFH, MSCFH, SCFH, SCFM, SFP, AMSEC, SMSEC.

**TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES**

MONITORING PLAN INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Maximums, Minimums, Defaults and Constants  (Modified)	531	1	Record type code			A,C,U	3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Parameter <sup>5</sup>				4	A4
		14	Value of default, maximum, minimum or constant				13	F13.3
		27	Units of measure <sup>21</sup>				7	A7
		34	Purpose or intended use <sup>5</sup>				3	A3
		37	Type of fuel <sup>5</sup>				3	A3
		40	Indicator of use for controlled/uncontrolled hours (A-any hour, C-controlled, U-uncontrolled)				1	A1
		41	Source of value <sup>5</sup>				4	A4
		45	Value effective date				8	I8
		53	Value effective hour				2	I2
		55	Value no longer effective date				8	I8
		63	Value no longer effective hour				2	I2
		65	SO <sub>2</sub> emission factor				ARP only	lb/mmBtu
Total Record Length							70	
Unit and Stack Operating Load Data  (Modified)	535	1	Record type code			MW,ST	3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Load units (MW-MWe, ST-1000lb steam)				2	A2
		12	Maximum hourly gross load				6	I6
		18	[Reserved]				1	
		19	Exemption from multi-load flow RATAs (P-peaking unit, B-bypass stack, S-single load testing only, approved by EPA)				1	A1
Total Record Length							19	
Range of Operation Normal Load , and Load Usage	536	1	Record type code	Optional	MWe, 1000lb/hr  MWe, 1000 lb/hr	L,M,H	3	I3
		4	Unit/Stack ID				6	A6
		10	Upper boundary of range of operation				6	I6
		16	Lower boundary of range of operation				6	I6
		22	Two most frequently-used load levels				3	A3
		25	Designated normal load				1	A1
		26	Second designated normal load				1	A1
		27	Date of historical load analysis (activation date)				8	I8
		35	Inactivation date				8	I8
Total Record Length							42	

<sup>21</sup> Limited to a table of codes: %, %H<sub>2</sub>O, BBLHR, GALHR, HSCF, LBHR, LBMMBTU, M3HR, MMBTUHR, PPM, SCFH, TNMMBTU

**TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES**

MONITORING PLAN INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
Fuel Flowmeter Data  (Modified)	540	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Parameter monitored			GAS, LTGS, LTOL, OILM, OILV	4	A4
		17	Type of fuel <sup>5</sup>				3	A3
		20	Maximum system fuel flow rate				10	F10.1
		30	Units of measure for maximum fuel flow rate <sup>22</sup>				5	A5
		35	Source of maximum rate (URV-upper range value, UMX-unit max)			URV, UMX	3	A3
		38	Initial accuracy test method <sup>5</sup>				11	A11
		49	[Reserved]				11	
60	Submission status (A-add, C-correct, D-delete, U-unchanged)				A,C,D,U	1	A1	
Total Record Length							60	
Reasons for Monitoring System Downtime or Missing Parameter  (Optional)	550	1	Record type code				3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Parameter <sup>5</sup>				4	A4
		14	Monitoring system ID				3	A3
		17	Begin date		YYMMDD		6	I6
		23	Begin hour		HH	00-23	2	I2
		25	End date		YYMMDD		6	I6
		31	End hour		HH	00-23	2	I2
		33	Missing data reason code <sup>5</sup>			1-99	2	I2
		35	Missing data description <sup>23</sup>				75	A75
110	Corrective action description				75	A75		
Total Record Length							184	
Monitoring System Re-certification, Maintenance, or Other Events	556	1	Record type code				3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Event code <sup>5</sup>			1-999	3	I3
		19	Code for required test <sup>5</sup>			1-99	2	I2
		21	Date of event		YYYYMMDD		8	I8
		29	Hour of event		HH	00-23	2	I2
		31	Beginning of conditionally valid period (probationary calibration error test) date		YYYYMMDD		8	I8
		39	Beginning of conditionally valid period (probationary calibration error test) hour		HH	00-23	2	I2
		41	Date that last test is successfully completed		YYYYMMDD		8	I8
		49	Hour that last test is successfully completed		HH	00-23	2	I2
		51	Indicator that conditionally valid data were reported at end of quarter			C	1	A1
Total Record Length							51	

<sup>22</sup> For volumetric flow meters for oil use SCFH (scf/hr); GALHR (gal/hr); BBLHR (barrels/hr); M3HR (M<sup>3</sup>/hr).  
For mass of oil flow meters use LBHR.  
For gas flow meters use HSCF (for 100 scfh).

<sup>23</sup> Optional field. Provide information if code does not adequately explain reason or event or if code 99 (OTHER) is used.

**TABLE 3: MONITORING PLAN FILE RECORD STRUCTURES**

MONITORING PLAN INFORMATION										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
Appendix E NO <sub>x</sub> Correlation Curve Segments  (Modified)	560	1	Record type code		YYYYMMDD	0-99	3	I3		
		4	Unit/Pipe ID				6	A6		
		10	Test date				8	I8		
		18	Test number				2	I2		
		20	Operating level				2	I2		
		22	Segment ID				3	A3		
		25	NO <sub>x</sub> monitoring system ID				3	A3		
		28	Heat input rate #1 (low)				7	F7.1		
		35	Heat input rate #2 (high)				7	F7.1		
		42	NO <sub>x</sub> emission rate #1				6	F6.3		
		48	NO <sub>x</sub> emission rate #2				6	F6.3		
		54	Type of fuel <sup>5</sup>				3	A3		
		57	[Reserved]				8			
Total Record Length							64			
Monitoring Methodology Information  (Modified)	585	1	Record type code			P,S	3	I3		
		4	Unit ID				6	A6		
		10	Parameter <sup>5</sup>				4	A4		
		14	Monitoring methodology <sup>5</sup>				10	A10		
		24	Type of fuel associated with methodology <sup>5</sup>				3	A3		
		27	Primary/secondary methodology indicator				1	A1		
		28	Missing data approach for methodology <sup>5</sup>				6	A6		
		34	Methodology start date				8	I8		
		42	Methodology end date				8	I8		
		Total Record Length							49	
Control Equipment Information  (Modified)	586	1	Record type code		YYYYMMDD	P,S O	3	I3		
		4	Unit ID				6	A6		
		10	Parameter (NOX, SO2, PART)				4	A4		
		14	Control equipment code <sup>5</sup>				6	A6		
		20	Primary/secondary controls indicator				1	A1		
		21	Original installation (O-original)				1	A1		
		22	Controls install date				8	I8		
		30	Controls optimization date				8	I8		
		38	Controls retirement date				8	I8		
		46	Seasonal controls indicator (S-ozone season only)				Subpart H only	S	1	A1
Total Record Length							46			
Unit Fuel Type  (Modified)	587	1	Record type code		YYYYMMDD	E,I,P,S	3	I3		
		4	Unit ID				6	A6		
		10	Fuel types combusted <sup>5</sup>				3	A3		
		13	Fuel type start date				8	I8		
		21	Fuel type end date				8	I8		
		29	Primary/secondary/emergency/startup fuel indicator				1	A1		
		30	Ozone season fuel switching flag (S-burned during ozone season for ozone control)				Subpart H only	S	1	A1
		31	Demonstration method to qualify for monthly fuel sampling for GCV					GHS, GGC, GOC	3	A3
		34	Demonstration method to qualify for daily fuel sampling for %S				ARP only	SHS, SGC	3	A3
Total Record Length							36			

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
CALIBRATION/ERROR TESTS										
7-Day Calibration Error Test Data and Results	600	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date		YYMMDD		6	I6		
		22	Hour		HH	00-23	2	I2		
		24	Instrument span				13	F13.3		
		37	Reference value				13	F13.3		
		50	Measured value				13	F13.3		
		63	Results (calibration error or  R-A )		% , ppm	0.0-100.0	5	F5.1		
		68	Alternative performance specification (APS) flag <sup>3</sup>			0,1	1	I1		
		69	Reference signal or calibration gas level (Z-zero, M-mid, H-high)			Z,M,H	1	A1		
		70	Span scale (H-high, L-low)			H,L	1	A1		
		71	Test number				2	I2		
		73	Reason for test (C-initial cert, D-diagnostic, R-recert)			C,D,R	2	A2		
Total Record Length							74			
LINEARITY CHECKS										
Linearity Check Data	601	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Date		YYMMDD		6	I6		
		22	Time		HHMM	0000-2359	4	I4		
		26	Instrument span				13	F13.3		
		39	Reference value				13	F13.3		
		52	Measured value				13	F13.3		
		65	Calibration gas level (Z-zero, L-low, M-mid, H-high)			Z,L,M,H	1	A1		
		66	Span scale (H-high, L-low)			H,L	1	A1		
		67	Test number				2	I2		
		69	Indicator of aborted test (A-aborted test)			A	1	A1		
		Total Record Length							69	
		Linearity Check Results	602	1	Record type code				3	I3
4	Unit/Stack ID						6	A6		
10	Component ID						3	A3		
13	Monitoring system ID						3	A3		
16	Date				YYMMDD		6	I6		
22	Instrument span						13	F13.3		
35	Mean of reference values						13	F13.3		
48	Mean of measured values						13	F13.3		
61	Results (linearity error or  R-A )				% , ppm	0.0-100.0	5	F5.1		
66	Alternative performance specification (APS) flag <sup>3</sup>					0,1	1	I1		
67	[Reserved]						4			
71	Calibration gas level (Z-zero, L-low, M-mid, H-high)					Z,L,M,H	1	A1		
72	Span scale (H-high, L-low)					H,L	1	A1		
73	Test number						2	I2		
75	Reason for test (C-initial cert, D-diagnostic, R-recert, Q-QA, G-grace period QA)					C,D,R,Q, RG,RQ,G	2	A2		
Total Record Length							76			

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
LEAK CHECKS								
Flow Leak Check Results	603	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date		YYMMDD		6	I6
		22	Hour		HH	00-23	2	I2
		24	Status (P-pass, F-fail)			P,F	1	A1
		25	[Reserved]				4	
		29	Reason for test (D-diagnostic, Q-QA, G-grace period QA)			D,Q,G	2	A2
Total Record Length							30	
FLOW/LOAD CHECKS								
Reference Data for Flow-to-Load Ratio or Gross Heat Rate Evaluation	605	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Monitoring system ID				3	A3
		13	Reference flow RATA end date		YYYYMMDD		8	I8
		21	Reference RATA end time		HHMM	0000-2359	4	I4
		25	Test number				2	I2
		27	Average gross unit load (MWe or Steam)		MWe, 1000 lb/hr steam		6	I6
		33	Operating level (L-low, M-mid, H-high) (N-normal, for peaking units only)			L,M,H,N	1	A1
		34	Average reference method flow rate during reference flow RATA		scfh		10	I10
		44	Reference flow/load ratio				6	F6.2
		50	Average hourly heat input rate during RATA		mmBtu/hr		7	F7.1
		57	Reference gross heat rate (GHR) value		Btu/kw-hr, Btu/lb steam		6	I6
		Total Record Length						

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
FLOW/LOAD CHECKS								
Quarterly Flow-to-Load Ratio or Gross Heat Rate Check	606	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Monitoring system ID				3	A3
		13	Calendar quarter and year		YYYY		5	I5
		18	Test basis indicator (Q-flow-to-load ratio; H-gross heat rate)			Q,H	1	A1
		19	Bias adjusted flow rates used (Y,N)			Y,N	1	A1
		20	Average absolute % difference between reference ratio (or GHR) and hourly ratios (or GHR values), E <sub>r</sub>		%	0.0-100.0	5	F5.1
		25	Result (P-pass, F-fail, N-<168 hours within ± 10% of average load, E-<168 hours for data analysis after exempted hours removed)			P,F,N,E	1	A1
		26	Number of hours used in quarterly flow-to-load or GHR analysis		hrs		4	I4
		30	Number of hours excluded for different type of fuel		hrs		4	I4
		34	Number of hours excluded for load ramping up or down		hrs		4	I4
		38	Number of hours excluded for scrubber bypass		hrs		4	I4
		42	Number of excluded hours preceding a normal load flow RATA		hrs		4	I4
		46	Number of excluded hours preceding a successful diagnostic test, following a documented monitor repair, or following a major component replacement		hrs		4	I4
50	Number of hours excluded for flue gases discharging simultaneously through a main stack and bypass stack		hrs		4	I4		
Total Record Length							53	



**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
RATA/BIAS TESTS								
RATA and Bias Test Data	610	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Monitoring system ID				3	A3
		13	Run start date		YYMMDD		6	I6
		19	Run start time		HHMM	0000-2359	4	I4
		23	Run end date		YYMMDD		6	I6
		29	Run end time		HHMM	0000-2359	4	I4
		33	Units of measure (1-ppm, 2-lb/mmBtu, 3-scfh, 4-%CO <sub>2</sub> , 5-%O <sub>2</sub> 6-mmBtu/hr (OTC NBP only), 7-%H <sub>2</sub> O)			1-7	1	I1
		34	Value from CEM system being tested				13	F13.3
		47	Value from reference method, adjusted as necessary for moisture and/or calibration bias				13	F13.3
		60	Run number				2	I2
		62	RATA run status flag 0 - RATA used, run not used 1 - run data used in calculating relative accuracy and bias 9 - test aborted			0,1,9	1	I1
		63	Operating level (L-low, M-mid, H-high) (Use N-normal for peaking units only)			L,M,H,N	1	A1
		64	Gross unit load		MWe, 1000 lbs/hr		6	I6
70	Test number				2	I2		
Total Record Length							71	

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA									
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)	
RATA/BIAS TESTS									
RATA and Bias Test Results  (Modified)	611	1	Record type code				3	I3	
		4	Unit/Stack ID				6	A6	
		10	Monitoring system ID				3	A3	
		13	RATA end date				6	I6	
		19	RATA end time				4	I4	
		23	Reference method used <sup>5</sup>				11	A11	
		34	Units of measure (1-ppm, 2-lb/mmBtu, 3-scfh, 4-%CO <sub>2</sub> ,5-%O <sub>2</sub> , 6-mmBtu/hr, 7-%H <sub>2</sub> O)				1	I1	
		35	Arithmetic mean of CEMS values				13	F13.3	
		48	Arithmetic mean of reference method values				13	F13.3	
		61	Arithmetic mean of the difference data				13	F13.3	
		74	Standard deviation of difference data				13	F13.3	
		87	Confidence coefficient				13	F13.3	
		100	Relative accuracy				5	F5.2	
		105	Tabulated t- value (bias test)				6	F6.3	
		111	Bias adjustment factor at this load level				5	F5.3	
		116	Operating level (L-low, M-mid, H-high) (Use N-normal, for peaking units only)				1	A1	
		117	Average gross unit load (MWe or steam)				6	I6	
		123	[Reserved]				4		
		127	Indication of normal load (N-normal, otherwise, blank)				N	1	A1
		128	Alternative performance specification (APS) flag <sup>6</sup>				0,1	1	I1
129	Test number		2	I2					
131	Reason for RATA (C-initial cert, D-diagnostic, R-recert, Q-QA, G-grace period QA)	C,D,R,Q, RQ,G,QD	2	A2					
133	Number of load levels comprising test (1 for gas RATAs, 1-3 for flow or heat input RATAs)	1-3	1	I1					
134	System bias adjustment factor for a multiple load flow RATA		5	F5.3					
Total Record Length							138		



**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
RATA/BIAS TESTS								
Reference Method Supporting Data for Flow RATA Tests  (Methods 2, 2F, 2G, and 2H)  Traverse Point Level Data	615	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Monitoring system ID				3	A3
		13	Test number				2	I2
		15	Operating level			L,M,H,N	1	A1
		16	Run number				2	I2
		18	Reference method probe type			S,P,AS, DA, DAT,SPH	4	A4
		22	Probe ID				11	A11
		33	Pressure measurement device type			MN,MG, ET	2	A2
		35	Method 1 traverse point ID				3	A3
		38	Probe or pitot tube velocity calibration coefficient				5	F5.3
		43	Date of latest probe or pitot tube calibration		YYYYMMDD		8	I8
		51	Average velocity differential pressure at traverse point		in. H <sub>2</sub> O		5	F5.3
		56	Average of square roots of velocity differential pressures at traverse point		(in H <sub>2</sub> O) <sup>1/2</sup>		5	F5.3
		61	T <sub>s</sub> , stack temperature at traverse point		°F		5	F5.1
66	Exterior Method 1 traverse point identifier				W	1	A1	
67	Number of wall effects measurement points used to derive replacement velocity					2	I2	
69	Yaw angle of flow at traverse point			degrees	-179.9 to +180.0	6	F6.1	
75	Pitch angle of flow at traverse point			degrees	-179.9 to +180.0	6	F6.1	
81	Calculated velocity at traverse point, not accounting for wall effects			ft/sec		6	F6.2	
87	Replacement velocity at traverse point, accounting for wall effects			ft/sec		6	F6.2	
Total Record Length							92	
Reference Method Supporting Data for Flow RATA Tests  (Method 2 and 2H, default WAF only)	616	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Monitoring system ID				3	A3
		13	Test number				2	I2
		15	Operating level			L,M,H,N	1	A1
		16	RATA end date		YYYYMMDD		8	I8
		24	RATA end time		HHMM	0000-2359	4	I4
		28	Default wall effects adjustment factor used			0.9900, 0.9950	6	F6.4
Total Record Length							33	

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
CYCLE TIME TEST								
Cycle Time Test Data and Results	621	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date		YYMMDD		6	I6
		22	Start time		HHMM	0000-2359	4	I4
		26	End time		HHMM	0000-2359	4	I4
		30	Component cycle time		min		2	I2
		32	Stable starting monitor value				13	F13.3
		45	Stable ending monitor value				13	F13.3
		58	Calibration gas value				13	F13.3
		71	Calibration gas level (Z-zero, H-high)			Z,H	1	A1
		72	Total or system cycle time <sup>24</sup>		min		2	I2
		74	Reason for test (C-initial cert, D-diagnostic, R-recert)			C,D,R	2	A2
		76	Test number				2	I2
Total Record Length							77	
ON LINE/OFF LINE CALIBRATION DEMONSTRATION								
Qualifying Test for Off-line Calibration Error Tests	623	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Date		YYMMDD		6	I6
		22	Hour		HH	00-23	2	I2
		24	Instrument span				13	F13.3
		37	Reference value				13	F13.3
		50	Measured value				13	F13.3
		63	Results (CE or  R-A )		%,ppm	0.00-100.0	5	F5.1
		68	Alternative specification flag <sup>3</sup>			0,1	1	I1
		69	[Reserved]				2	
		71	Calibration gas or reference signal level (Z-zero, M-mid, H-high)			Z,M,H	1	A1
		72	Span scale (H-high, L-low)			H,L	1	A1
		73	Off-line/On-line indicator (OFF-unit not operating, ON-unit operating)			ON,OFF	3	A3
76	Reason for test (C-initial demonstration, D-diagnostic)			C,D	1	A1		
77	Test number				2	I2		
Total Record Length							78	

<sup>24</sup> For NO<sub>x</sub> and SO<sub>2</sub> emission rate (lb/mmBtu) systems, report the longer cycle time of the two component analyzers as the system cycle time.

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
MISCELLANEOUS QA TEST/ACTIVITY								
Other QA Activities  (Modified)	624	1	Record type code				3	I3
		4	Unit/Stack/Pipe ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Parameter				4	A4
		20	Activity/test completion date		YYYYMMDD		8	I8
		28	Activity/test completion hour		HH	00-23	2	I2
		30	QA test activity description				20	A20
		50	Test result (P-pass, F-fail)			P,F	1	A1
		51	Reason for test (C-initial cert, D-diagnostic, R-recert, Q-QA)			C,D,R,Q, RQ	2	A2
		53	QA test code			01,02,03,04, 05,99	2	I2
		Total Record Length						
FUEL FLOWMETER ACCURACY CHECKS								
Fuel Flowmeter Accuracy Test  (Modified)	627	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Test completion date		YYYYMMDD		8	I8
		24	Test completion hour		HH		2	I2
		26	Reinstallation date		YYYYMMDD		8	I8
		34	Reinstallation hour		HH		2	I2
		36	Accuracy at low fuel flowrate (% of URV)		%		5	F5.1
		41	Highest accuracy at mid fuel flowrate (% of URV)		%		5	F5.1
		46	Accuracy at high fuel flowrate (% of URV)		%		5	F5.1
		51	Test method (L-lab comparison to reference meter, I-in-line comparison to master meter)			I,L	1	A1
		52	Test result (A-aborted, P-pass, F-fail)			A,P,F	1	A1
		53	Test number				2	I2
Total Record Length							54	
Accuracy Test for Orifice, Nozzle, or Venturi Type Fuel Flowmeters	628	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	Test completion date		YYYYMMDD		8	I8
		24	Test completion hour		HH		2	I2
		26	Accuracy determination at low level <sup>25</sup>		%		5	F5.1
		31	Accuracy determination methodology for low level <sup>5</sup>				4	A4
		35	Highest accuracy determination at mid level <sup>25</sup>		%		5	F5.1
		40	Accuracy determination methodology for mid level <sup>5</sup>				4	A4
		44	Accuracy determination at high level <sup>25</sup>		%		5	F5.1
		49	Accuracy determination methodology for high level <sup>5</sup>				4	A4
		53	Test result (A-aborted, P-pass, F-fail)			A,P,F	1	A1
		54	Test number				2	I2
Total Record Length							55	

25

Report either: (1) the highest individual accuracy of any of the three transmitters; or (2) the sum of the three transmitter accuracies; or (3) the total fuel flowmeter accuracy calculated according to AGA3 part 1, "General Equations and Uncertainty Guidelines."

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
QUARTERLY FUEL FLOW-TO-LOAD ANALYSIS								
Baseline Data for Fuel-Flow-to-Load Ratio or Gross Heat Rate Check for Fuel Flowmeters  (Modified)	629	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Completion date of most recent primary element inspection		YYYYMMDD		8	I8
		21	Completion hour of most recent primary element inspection		HH		2	I2
		23	Completion date of most recent flowmeter or transmitter accuracy test		YYYYMMDD		8	I8
		31	Completion hour of most recent flowmeter or transmitter accuracy test		HH		2	I2
		33	Beginning date of baseline period		YYYYMMDD		8	I8
		41	Beginning hour of baseline period		HH		2	I2
		43	Completion date of baseline period		YYYYMMDD		8	I8
		51	Completion hour of baseline period		HH		2	I2
		53	Average fuel flow rate (100 scfh for gas and lb/hr for oil)				10	F10.1
		63	Average load (MWe or 1000 lb/stream/hr)				6	I6
		69	Baseline fuel-flow-to-load ratio				6	F6.2
		75	Units of fuel-flow-to-load (1-100scfh/MWe, 2-100scfh/klb per hour steam, 3-(lb/hr)/MWe, 4-(lb/hr)/klb per hour steam load, 5-(gal/hr)/MWe, 6-(gal/hr)/klb per hour of steam load)			1-6	1	I1
		76	Average hourly heat input rate		mmBtu/hr		7	F7.1
		83	Baseline GHR				6	I6
		89	Units of baseline GHR (1 - Btu/kwh, 2 - Btu/lb steam)			1-2	1	I1
		90	Number of hours excluded due to co-firing or combustion of a different type of fuel		hrs		3	I3
		93	Number of hours excluded due to ramping		hrs		3	I3
96	Number of excluded hours in lower 25% of range of operation		hrs		3	I3		
99	Flag indicating baseline data collection is in progress and that < 4 calendar quarters have elapsed since quarter of the last flowmeter QA test				B	1	A1	
Total Record Length							99	
Quarterly Fuel-Flow-to-Load Test for Fuel Flowmeters  (Modified)	630	1	Record type code				3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID				3	A3
		13	Component ID				3	A3
		16	Calendar quarter and year		QYYYY		5	I5
		21	Test basis indicator (Q-flow-to-load ratio, H-gross heat rate)			Q,H	1	A1
		22	Quarterly average absolute % difference between baseline ratio (or baseline GHR) and hourly quarterly ratios (or GHR values), E <sub>q</sub>		%	0.0-100.0	5	F5.1
		27	Result (P-pass, F-fail, N-<168 hours data, E-<168 hours of data after exemptions removed, B-baseline data collection in progress)			P,F,N,E,B	1	A1
		28	Number of hours used in the quarterly data analysis		hrs		4	I4
		32	Number of hours excluded due to co-firing or combustion of a different type of fuel		hrs		4	I4
		36	Number of hours excluded due to ramping		hrs		4	I4
		40	Number of excluded hours in lower 25% of range of operation		hrs		4	I4
Total Record Length							43	

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
ALTERNATIVE MONITORING PETITION DATA								
Alternative Monitoring System Approval Petition Data	640	1	Record type code				3	I3
		4	Unit/Stack ID				6	A6
		10	Component ID				3	A3
		13	Monitoring system ID				3	A3
		16	AMS ID				6	A6
		22	Date		YYMMDD		6	I6
		28	Hour		HH	00-23	2	I2
		30	Hourly test data for alternative monitoring system				13	F13.3
		43	Hourly lognormalized test data for alternative monitoring system				13	F13.3
		56	Hourly test data for reference CEMS				13	F13.3
		69	Fuel type code				2	I2
		71	Operating level (L-low, M-mid, H-high) (Use N-normal for peaking units only)			L,M,H,N	1	A1
		72	Gross unit load			MWe	6	I6
Total Record Length							77	



**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
ALTERNATIVE MONITORING PETITION DATA										
Alternative Monitoring System Approval Petition Results and Statistics	641	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Unit of measure (1-ppm, 2-lb/mmBtu, 3-scfh, 4-%CO <sub>2</sub> , 5-%O <sub>2</sub> , 6-mmBtu/hr, 7-%H <sub>2</sub> O)			1-7	1	A1		
		17	Arithmetic mean of AMS values				13	F13.3		
		30	Arithmetic mean of CEM values				13	F13.3		
		43	Arithmetic mean of differences of paired AMS and CEM values				13	F13.3		
		56	Variance of differences				13	F13.3		
		69	Variance of measured values of AMS				13	F13.3		
		82	Variance of measured values for CEM				13	F13.3		
		95	F-statistic				13	F13.3		
		108	Critical value of F at 95% confidence level for sample size				13	F13.3		
		121	Coefficient of correlation (Pearson's r) of CEM and AMS data				13	F13.3		
		134	Shapiro-Wilk test statistic (W) for AMS data				13	F13.3		
		147	Shapiro-Wilk test statistic (W) for CEMS data				13	F13.3		
		160	Lognormally adjusted data used in final analysis (1=yes, 0=no)			0,1	1	II		
		161	Autocorrelation coefficient (ρ) for AMS data				13	F13.3		
		174	Autocorrelation coefficient (ρ) for CEM data				13	F13.3		
		187	Autocorrelation coefficient (ρ) for differences of paired AMS and CEM data				13	F13.3		
		200	Adjustment for autocorrelation used in final analysis (1=yes, 0=no)			0,1	1	II		
		201	Covariance of alternative monitoring data and associated lag(1) values				13	F13.3		
		214	Covariance of continuous emission monitoring data and associated lag(1) values				13	F13.3		
		227	Covariance of differences of paired AMS and CEM data				13	F13.3		
		240	Standard deviation of AMS data				13	F13.3		
		253	Standard deviation of CEM data				13	F13.3		
		266	Standard deviation of differences of paired AMS and CEM data				13	F13.3		
		279	Standard deviation of lag(1) AMS data				13	F13.3		
		292	Standard deviation of lag(1) CEM data				13	F13.3		
		305	Standard deviation of lag(1) differences of paired AMS and CEM data				13	F13.3		
		318	Variance inflation factor for AMS data				13	F13.3		
		331	Variance inflation factor for CEM data				13	F13.3		
		344	Variance inflation factor for difference of paired AMS and CEM data				13	F13.3		
		Total Record Length							356	

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
LOW MASS EMISSIONS CERTIFICATION DATA								
Qualifying Data for Low Mass Emissions Units Excepted Methodology (Modified)	645	1	Record type code				3	I3
		4	Unit ID				6	A6
		10	Calendar year of application		YYYY		4	I4
		14	Type of qualification			YR,OS	2	A2
		16	Year 1		YYYY		4	I4
		20	Annual or OS measured/projected/estimated NO <sub>x</sub> mass emissions for Year 1		ton		4	F4.1
		24	Annual or OS NO <sub>x</sub> mass calculated from emission factors for Year 1		ton		4	F4.1
		28	Annual measured/projected/estimated SO <sub>2</sub> mass emissions for Year 1	ARP only	ton		4	F4.1
		32	Annual SO <sub>2</sub> mass calculated from emission factors for Year 1	ARP only	ton		4	F4.1
		36	Annual or OS operating hours for Year 1		hrs		4	I4
		40	Year 2		YYYY		4	I4
		44	Annual or OS measured/projected/estimated NO <sub>x</sub> mass emissions for Year 2		ton		4	F4.1
		48	Annual or OS NO <sub>x</sub> mass calculated from emission factors for Year 2		ton		4	F4.1
		52	Measured/projected/estimated SO <sub>2</sub> mass emissions for Year 2	ARP only	ton		4	F4.1
		56	Annual SO <sub>2</sub> mass calculated from emission factors for Year 2	ARP only	ton		4	F4.1
		60	Annual or OS operating hours for Year 2		hrs		4	I4
		64	Year 3		YYYY		4	I4
		68	Annual or OS measured/projected/estimated NO <sub>x</sub> mass emissions for Year 3		ton		4	F4.1
		72	Annual or OS NO <sub>x</sub> mass calculated from emission factors for Year 3		ton		4	F4.1
		76	Measured/projected/estimated SO <sub>2</sub> mass emissions for Year 3	ARP only	ton		4	F4.1
80	Annual SO <sub>2</sub> mass calculated from emission factors for Year 3	ARP only	ton		4	F4.1		
84	Annual or OS operating hours for Year 3		hrs		4	I4		
Total Record Length							87	



**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)
APPENDIX E TEST DATA								
Heat Input from Oil Combusted During Test	652	1	Record type code		YYMMDD	0000-2359	3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID for oil fuel flow system				3	A3
		13	Run start date				6	I6
		19	Run start time				4	I4
		23	Run end date				6	I6
		29	Run end time				4	I4
		33	Run number				2	I2
		35	Mass of oil combusted during run		10	F10.1		
		45	Gross calorific value (GCV) of oil		10	F10.1		
		55	Heat input from oil during run		mmBtu		7	F7.1
		62	Volume of oil combusted during run				10	F10.1
		72	Units of measure for oil flow <sup>5</sup>				5	A5
		77	Density of oil				8	F8.6
		85	Units of measure for density of oil <sup>5</sup>				5	A5
		90	Test number				2	I2
		92	Units of measure for GCV <sup>5</sup>				6	A6
		Total Record Length						
Heat Input from Gas Combusted During Test	653	1	Record type code		YYMMDD	0000-2359	3	I3
		4	Unit/Pipe ID				6	A6
		10	Monitoring system ID for gas fuel flow system				3	A3
		13	Run start date				6	I6
		19	Run start time				4	I4
		23	Run end date				6	I6
		29	Run end time				4	I4
		33	Volume of gas combusted during run				10	F10.1
		43	Gross calorific value (GCV) of gas		10	F10.1		
		53	Heat input from gas during run		7	F7.1		
	60	Test number	2	I2				
	Total Record Length							61
Unit Group Testing  (Modified)  LME Only	660	1	Record type code				3	I3
		4	Group ID				8	A8
		12	ORIS code or facility ID				6	I6
		18	Plant name				20	A20
		38	Unit ID				6	A6
		44	Test status (AE-App. E testing performed, NT-no testing performed)				2	A2
		46	Test date for unit (blank, if not tested)				8	I8
		54	Default rate from identical unit testing (if applicable)				6	F6.3
		60	Purpose of group tests (DF-default rate)				2	A2
		62	Type of fuel <sup>5</sup>				1	A1
63	[Reserved]	3	A3					
Total Record Length							65	

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
QA TEST EXTENSIONS/EXEMPTION CLAIMS										
Single-load Flow RATA Claim	695	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Monitoring system ID				3	A3		
		13	End date of last annual flow RATA				YYYYMMDD	8	I8	
		21	End date of historical load data collection period				YYYYMMDD	8	I8	
		29	Historical % usage of low load level (≤ 30.0% of range of operation) in the load data collection period				%	0-100.0	5	F5.1
		34	Historical % usage of mid load level (>30.0 through 60.0% of range of operation) in the load data collection period				%	0-100.0	5	F5.1
		39	Historical % usage of high load level (>60.0% of range of operation) in the load data collection period				%	0-100.0	5	F5.1
		44	Load level for the single-load flow RATA					L,M,H	1	A1
Total Record Length							44			
Fuel Flowmeter Accuracy Test Extension	696	1	Record type code				3	I3		
		4	Unit/Pipe ID				6	A6		
		10	Monitoring system ID				3	A3		
		13	Date of last accuracy test				YYYYMMDD	8	I8	
		21	Accuracy test expiration date without extension				YYYYMMDD	8	I8	
		29	Accuracy test expiration date with extension				YYYYMMDD	8	I8	
		37	Type of extension <sup>26</sup>					1-5	2	I2
		39	Quarter and year				QYYYYY	5	A5	
Total Record Length							43			

<sup>26</sup>

Limited to table of codes:

- 1 Accuracy test extension (reporting quarter does not qualify as a "fuel flowmeter QA operating quarter")
- 2 Accuracy test extension based on successful fuel flow-to-load ratio or GHR test
- 3 Accuracy test extension based on ongoing baseline data collection for fuel-to-load ratio or GHR test
- 4 Extension claimed because fewer than 168 hours of fuel flowmeter data remained for fuel flow-to-load ratio analysis, after allowable data exclusions were taken under Section 2.1.7.3 of Appendix D
- 5 Extension for first or fourth calendar quarter for ozone season reporter using fuel flow-to-load test.

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA									
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)	
RATA Deadline Extension or Exemption  (Modified)	697	1	Record type code				3	I3	
		4	Unit/Stack ID				6	A6	
		10	Monitoring system ID				3	A3	
		13	Date of last RATA				8	I8	
		21	RATA expiration date without extension		YYYYMMDD		8	I8	
		29	RATA expiration date with extension		YYYYMMDD		8	I8	
		37	Type of RATA extension or exemption claimed or lost <sup>27</sup>		1-9		2	I2	
		39	Year-to-date usage of fuel with sulfur content higher than very low sulfur fuel (as defined in § 72.2)				hrs	4	I4
		43	Year-to-date hours of regular non-redundant back-up CEMS use at this unit/stack				hrs	4	I4
		47	Quarter and year				QYYYY	5	A5
Total Record Length							51		

27

Limited to table of codes:

- 1 RATA deadline extension claimed for the monitoring system identified in RT 697/10. Unit/stack operated for fewer than 168 hours this quarter
- 2 SO<sub>2</sub> RATA deadline extension claimed. Only very low sulfur fuel (as defined in § 72.2) was combusted this quarter
- 3 Ongoing SO<sub>2</sub> RATA exemption claimed. Only very low sulfur fuel (as defined in § 72.2) was combusted this quarter
- 4 Conditional SO<sub>2</sub> RATA exemption claimed. Year-to-date usage of fuel with a higher sulfur content than 'very low sulfur' fuel (as defined in § 72.2) is ≤ 480 hours.
- 5 Conditional RATA exemption claimed. Year-to-date usage of a regular (B) non-redundant backup monitoring system at this unit/stack is < 720 hours and less than 8 full quarters have elapsed since last RATA
- 6 Ongoing SO<sub>2</sub> RATA exemption lost. Fuel with a higher sulfur content than very low sulfur fuel (as defined in § 72.2) was combusted this quarter
- 7 Conditional SO<sub>2</sub> RATA exemption lost. Year-to-date usage of fuel with a higher sulfur content than very low sulfur fuel (as defined in § 72.2) has exceeded 480 hours
- 8 Conditional RATA exemption lost. Year-to-date usage of a regular non-redundant backup monitoring system has exceeded 720 hours at this unit or stack
- 9 Exemption From Performing Single-Load RATA at Normal Load. An EPA-approved exemption from performing a required single-load RATA at a normal load is claimed.

**TABLE 4: CERTIFICATION TEST DATA AND RESULTS**

CERTIFICATION TEST DATA										
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	FIELD NOTES	UNITS	RANGE	LENGTH	FORMAT (FTN)		
QA TEST EXTENSIONS/EXEMPTION CLAIMS										
Quarterly QA Test Exemption Claim	698	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Basis for exemption <sup>28</sup>				1-9	1	I1	
		17	Type of test	QYYYY	F,K,L	1	A1			
		18	Quarter and year			5	I5			
		23	Span scale		L,H	1	A1			
Total Record Length							23			
QA Test Extension Claim Based on Grace Period	699	1	Record type code				3	I3		
		4	Unit/Stack ID				6	A6		
		10	Component ID				3	A3		
		13	Monitoring system ID				3	A3		
		16	Type of test (K-Leak Test, L-linearity, R-RATA)				K,L,R	1	A1	
		17	Beginning of grace period				YYYYMMDD	8	I8	
		25	Date of completion of required QA test				YYYYMMDD	8	I8	
		33	Hour of completion of required QA test				HH	00-23	2	I2
		35	Number of unit/stack operating hours from beginning of grace period to completion of QA test or maximum allowable grace period				hrs		3	I3
		38	Date of end of grace period				YYYYMMDD	8	I8	
		46	Hour of end of grace period				HH	00-23	2	I2
Total Record Length							47			

28

- 1 Exemption for fewer than 168 unit/stack operating hours in quarter or reporting period
- 2 Linearity exemption analyzer range not used during calendar quarter (dual span only)
- 3 Flow-to-load test exemptions approved by petition under §75.66 and Section 7.8 of Appendix A
- 4 Linearity exemption for SO<sub>2</sub> or NO<sub>x</sub> analyzer span value ≤ 30 ppm

**TABLE 5 : COMPLIANCE CERTIFICATION DATA**

CERTIFICATION INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	PROGRAM	UNITS	RANGE	LENGTH	FORMAT (FTN)
CERTIFICATION DATA								
Part 75 Certification Statement and Designated Representative Signature  ARP Only	900	1	Record type code				3	I3
		4	Electronic representation of Part 75 certification statements <sup>29</sup>				18	A18
		22	DR last name				25	A25
		47	DR first name				15	A15
		62	DR middle initial				2	A2
		64	Date of signature			YYMMDD	6	I6
		70	Title (DR or ADR)			DR,ADR	3	A3
Total Record Length							72	
Part 72 Certification Statement  ARP Only	901	1	Record type code				3	I3
		4	Certification statement line #			1-12	2	I2
		6	Certification text (see instructions for verbatim text)				67	A67
Total Record Length							72	
Cover Letter Text (file- specific)  (Optional)	910	1	Record type code				3	I3
		4	Cover letter text, file-specific (see instructions)				69	A69
Total Record Length							72	
Cover Letter Text (not specific to file)  (Optional)	920	1	Record type code				3	I3
		4	Other cover letter text, not file-specific (see instructions)				69	A69
Total Record Length							72	

<sup>29</sup>

The code for this data element is either "CERTIFY," "CERTIFY CONTROLLED," or "CERTIFY DEFERRED."

"CERTIFY" means:

"I understand that EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.1, as required by 40 CFR 75.64.

I certify that all data submitted in this report were recorded in accordance with the applicable requirements of 40 CFR Part 75, and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

"CERTIFY CONTROLLED" means:

"I certify that for all hours in which data are submitted following the provisions of 75.34(a)(a) that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate SO<sub>2</sub> or other emissions, pursuant to § 75.34.

I understand that EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.1, as required by 40 CFR 75.64.

I certify that all data submitted in this report were recorded in accordance with the applicable requirements of 40 CFR Part 75, and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

"CERTIFY DEFERRED" means:

"I understand that for non-operating, affected unit(s) that are not yet certified under 40 CFR 75.4, this electronic report does not have to be generated by a Data Acquisition and Handling System.

I certify that one or more of the affected units identified in this electronic report did not operate and did not generate any SO<sub>2</sub>, NO<sub>x</sub>, or CO<sub>2</sub> emissions during the reporting period specified in the quarterly submission."



**TABLE 5 : COMPLIANCE CERTIFICATION DATA**

CERTIFICATION INFORMATION								
RECORD TYPE	TYPE CODE	START COL	DATA ELEMENT DESCRIPTION	PROGRAM	UNITS	RANGE	LENGTH	FORMAT (FTN)
Subpart H Certification Statement and NO <sub>x</sub> Authorized Account Representative Signature	940	1	Record type code				3	I3
		4	Electronic representation of NO <sub>x</sub> Budget Program certification statements <sup>30</sup>				18	A18
		22	AAR last name				25	A25
		47	AAR first name				15	A15
		62	AAR middle initial				2	A2
	Subpart H Only	64	Date of signature				6	I6
		70	Title (AAR or AAAR)				4	A4
Total Record Length							73	
Subpart H General Certification Statement	941	1	Record type code				3	I3
		4	Certification statement line #			1-11	2	I2
		6	Certification text (ask State for verbatim text)				67	A67
Total Record Length							72	
Contact Person Record  (Optional)	999	1	Record type code				3	I3
		4	First name				10	A10
		14	Last name				15	A15
		29	Role/Position of contact person				20	A20
		49	Company				20	A20
		69	DR indicator flag (D-DR/ADR/AAR/AAAR, N-Other)			D,N	1	A1
		70	Phone #				10	I10
		80	Fax #				10	I10
		90	E-mail address				75	A75
Total Record Length							164	

<sup>30</sup> The code for this data element is either "CERTIFY," "CERTIFY CONTROLLED," or "CERTIFY DEFERRED."

Unless otherwise specified by State requirements, "CERTIFY" means:

"I understand that the State or EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.1.

I certify that all data submitted in this report were recorded in accordance with Part 75 and any applicable State requirements and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

Unless otherwise specified by State requirements, "CERTIFY CONTROLLED" means:

"I certify that for all hours in which data are substituted that the add-on emission controls were operating within the range of parameters listed in the monitoring plan and that the substitute values recorded during the quarter do not systematically underestimate emissions.

I understand that the State or EPA may reject any electronic data submission (including Quarterly Reports) if it does not conform to the formatting requirements of EPA's Electronic Data Reporting, Version 2.1.

I certify that all data submitted in this report were recorded in accordance with Part 75 and any applicable State requirements and that all emissions and quality control data are reported using component ID codes, system ID codes, and formula ID codes which represent current operating conditions."

Unless otherwise specified by State requirements, "CERTIFY DEFERRED" means:

"I understand that for non-operating, affected unit(s) that are not yet certified under Part 75 and applicable State regulations, this electronic report does not have to be generated by a Data Acquisition and Handling System.

I certify that one or more of the affected units identified in this electronic report did not operate and did not generate any NO<sub>x</sub> emissions during the reporting period specified in the submission."

## Appendix A

**Table A-1: Differences between March 2003 and January 24, 2001 Editions of EDR v2.1**

Record Type	Data Field(s) Affected	Description of Change from January 24, 2001 Edition	Reason for Change
100	Column 15	Eliminate reference to EDR version 2.0	Use of version 2.0 is being discontinued
200	Column 41	Add MODC "22"	June, 2002 rule allows data to be reported from a certified inlet SO <sub>2</sub> monitor in certain instances
201	Column 30	Add MODC "22"	June, 2002 rule allows data to be reported from a certified inlet NO <sub>x</sub> monitor in certain instances
202	Column 30	Remove MODC "23"	The standard missing data procedures are used for O <sub>2</sub> , CO <sub>2</sub> , and H <sub>2</sub> O during bypass hours
210	Column 29		
211	Column 29		
212	Column 32		
220	Column 56	Remove MODC "23"	This code is not supported by the rule. Regular missing data routines are used for flow during scrubber bypass hours
302	Column 31	Modify codes	Remove obsolete OTC codes
302	Column 44	Reserve this field	This field was used only by OTC sources
302	Column 74	Modify codes	Make codes consistent with existing policy guidelines
302	Column 88	Reserve this field	This field was used only by OTC sources
302	Columns 90, 92	Modify code descriptions	June, 2002 rule includes changes to oil sampling provisions
303	Column 31	Modify codes	June, 2002 rule has new provisions for emergency fuel combustion.
303	Column 44	Reserve this field	This field was used only by OTC sources
303	Column 60	Modify codes	Delete unnecessary codes. Change code descriptions to better match the June, 2002 rule
313	Column 44	Delete unnecessary code "0". Modify other code descriptions	Make code descriptions consistent with the June, 2002 rule
314	Column 52	Modify code descriptions	Make code descriptions consistent with the June, 2002 rule
320	Column 53	Add MODC "22"	June, 2002 rule allows data to be reported from a certified inlet NO <sub>x</sub> monitor in certain instances
323	Column 21	Add new codes for Parameter Status Flag	June, 2002 rule changed the data substitution procedures for Appendix E for emergency fuels and uncontrolled hours
324	Column 24	Add new codes for Parameter Status Flag	June, 2002 rule changed the data substitution procedures for Appendix E for emergency fuels and uncontrolled hours
505	Column 10	Delete unnecessary code "SIP." Modify other code descriptions	Clarify program identifier codes for OTC sources transitioning to Subpart H monitoring and reporting
506	Column 31	Reserve this field	Eliminate confusion over ORISPL number versus facility ID number
510	Column 21	Add a new code, "CI," to list of "primary/backup" designations in footnote 18	June, 2002 rule allows data to be reported from a certified inlet SO <sub>2</sub> monitor in certain instances
510	Column 23	Add new component type code "TANK"	Code needed for groups of LME units served by a common oil supply tank
520	Column 14	Add parameter code "SO2R" for units using equation D-1h	This code was missing from previous versions
520	Column 18	Add new code "F-19V"	June, 2002 rule allows Subpart H units to determine heat input directly from data recorded by a volumetric fuel flowmeter
520	Table 13	Modify Equation D-1h	June, 2002 rule puts Eq. D-1h on a total sulfur basis
530	Column 15	Add new codes "ME" and "PL"	June, 2002 rule provides two new MPC/MEC determination methods for NO <sub>x</sub>

**Table A-1: Differences between March 2003 and January 24, 2001 Editions of EDR v2.1(cont.)**

<b>Record Type</b>	<b>Data Field(s) Affected</b>	<b>Description of Change from January 24, 2001 Edition</b>	<b>Reason for Change</b>
530	Column 62	Add new codes "AMSEC," "SMSEC"	Metric velocity units are used for the daily calibrations of certain stack flow monitors
530	Column 84	Modify data element description in EDR format	Clarify that "default value" refers to the "default high range value"
531	Column 41	Add "NOXU" to list of acceptable parameters under the source of value code "DATA" and modify the description of this code.	June, 2002 rule allows reporting of the NO <sub>x</sub> MER in the interval between first use of LME methodology and completion of fuel-and-unit-specific NO <sub>x</sub> emission rate testing (§ 75.19 (a)(4)).
531	Column 65	Revise data element description	This field applies to units using Equation F-23, as well as LME units.
535	Column 18	Reserve this field	This field was used only by OTC sources.
535	Column 19	Modify the data element description. Redefine code "S".	Certain units with installed flow monitors may be exempted by petition under § 75.66 from multi-load flow RATA testing
540	Column 38	Add new code "ISO"	An "ISO" fuel flowmeter calibration method is listed in section 2.1.5.1 of Appendix D
560	Column 57	Reserve this field	This field was used only by OTC sources.
585	Column 14	Add a new Methodology code for units with unmonitored bypass stacks that report MPC or MER during bypass hours	June, 2002 rule clarifies and expands bypass stack provisions
585	Column 24	Add new fuel codes	Certain Acid Rain and Subpart H units combust unusual fuels (e.g., process sludge, coal refuse, etc.)
585	Column 24	Add "LPG Liquefied Petroleum Gas" to list of fuel codes	LPG is shown in Tables 33 and 35 as an acceptable fuel code, but is not on the list in column 24.
585	Column 28	Add new code for Missing Data Approach	June 2002 rule allows ozone-season specific NO <sub>x</sub> missing data procedures for year-round reporters
585	Table 33	Add "LPG" to Table 33 as an acceptable fuel code under parameter "HI," methodology "GFF."	LPG should be included in the list of gaseous fuels that can be measured by a gas fuel flowmeter.
585	Table 35	Add Methodology code "EXP" for Heat Input	Some Non-Acid Rain Subpart H Units are exempt from heat input monitoring per the State SIP or by special petition
586	Column 46	Delete reference to OTC from "FIELD NOTES"	The OTC Program is superseded by the NO <sub>x</sub> Budget Trading Program
587	Column 10	Add new fuel types	Certain Acid Rain and Subpart H units combust unusual fuels (e.g., process sludge, coal refuse liquefied petroleum gas, etc.)
587	Column 30	Delete "OTC" from "FIELD NOTES" column	The OTC Program is superseded by the NO <sub>x</sub> Budget Trading Program
611	Column 23	Add new code for Reference Method 20	June, 2002 rule allows Reference Method 20 to be used for NO <sub>x</sub> RATAs
624	Column 53	Added QA test codes for PEMS	Monitoring under Subpart E would require these new codes
627	Columns 26 and 34	Modify data element descriptions	Make consistent with existing policy guidance
629	Column 75	Add code 5 and 6 for volumetric fuel flow	Non-Acid Rain Subpart H Units are not required to report mass of oil
629	Column 90	Modify data element description	June, 2002 rule allows a new data exclusion (for co-firing) for the fuel flow-to-load ratio test
630	Column 32	Modify data element description	June, 2002 rule allows a new data exclusion (for co-firing) for the fuel flow-to-load ratio test
645	Columns 20, 28, 44, 52, 68, 76	Modify certain data element descriptions.	June, 2002 rule significantly changes the methodology for a unit to qualify as a low mass emissions (LME) unit

**Table A-1: Differences between March 2003 and January 24, 2001 Editions of EDR v2.1(cont.)**

<b>Record Type</b>	<b>Data Field(s) Affected</b>	<b>Description of Change from January 24, 2001 Edition</b>	<b>Reason for Change</b>
650	Columns 68 and 69	Reserve these fields	June, 2002 rule changes the method of determining LME default NO <sub>x</sub> emission rates. All LME tests performed after 7/12/02 must use the new calculation methodology and be submitted in V2.2 format.
660	Column 44	Remove the code "OT"	This code applied only to OTC sources
660	Column 60	Delete the code "AE" from RANGE	Use of this code was allowed only for OTC sources
660	Column 63	Reserve this field	This field was needed only for OTC sources.
696	Column 37	Add Extension code 5 to code list in footnote	This code was missing from previous versions
697	Column 37	Add code "9"	Special code for single-load RATA performed at a non-normal load (requires EPA approval)

\*\* To properly assess the changes made to the codes for a particular data field, see the "Revised EDR Version 2.1 Reporting Instructions" for that field, in addition to Tables 2 through 5 of this document.